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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, based on *MasterFormat 2004* and *The Project Resource Manual—CSI Manual of Practice. The Manufacturer is responsible for technical accuracy.*

The section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building code. Words and sentences within brackets [ ] are choices to include or exclude a particular item or statement. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

SECTION 28 23 29
VIDEO SURVEILLANCE REMOTE DEVICES AND SENSORS
BOSCH AUTODOME EASY II COMPACT PTZ MINI DOME

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes
   1. Security Lighting

B. Related Sections
   1. Section [28 23 13 – Video Surveillance Control and Management Systems].
   2. Section [28 23 16 – Video Surveillance Monitoring and Supervisory Interfaces].
   3. Section [28 23 19 – Digital Video Recorders and Analog Recording Devices].
   4. Section [28 23 23 – Video Surveillance Systems Infrastructure].

**********Specifier's note: Include those standards referenced elsewhere in this SECTION.

1.2 REFERENCES

A. Canadian Standards Association (CSA)
   1. Complies with CSA standards.

B. European Norm
   1. Complies with CE Electromagnetic Compatibility regulations
   2. Complies with CE Product Safety regulations
   3. Complies with EN Product Safety standards

C. Federal Communications Commission (FCC) (www.fcc.gov)
   1. Complies with FCC Part 15.

D. Interference-Causing Equipment Standards
   1. Complies with ICES-003 regulations.

E. International Electrotechnical Commission (IEC)
   1. Complies with IEC Product Safety standards

F. Underwriters Laboratories, Inc. (UL) (www.ul.com)
   1. Complies with UL standards.

1.3 DEFINITIONS

A. Privacy Masking: The ability to mask out a specific area to prevent it from being viewed in order to comply with privacy laws and particular site requirements.

B. SensUp (sensitivity up): Increases camera sensitivity by increasing the integration time on the CCD (lowering shutter time from 1/50 to 1/5 s). This is accomplished by integrating the signal from a number of consecutive video fields to reduce signal noise.

C. Automatic Gain Control (AGC): a process by which gain is automatically adjusted as a function of input or other specified parameter.

D. Sensitivity: refers to the minimum level of light the CCD chip needs to generate an acceptable video picture, and is measured in lux.

1.4 SYSTEM DESCRIPTION

A. Section Includes
   1. Video Surveillance Remote Devices

B. Performance Requirements
   1. The camera dome shall be a compact, cost effective PTZ unit designed for discrete video surveillance applications in indoor environments.
   2. The camera shall be a high performance 1/4 in. Exview HAD CCD format with 530 TVL of resolution.
   3. The camera shall have an autofocus lens with 120x zoom (10x optical/12x digital).
   4. The dome housing shall be a heavy-duty, tamper-resistant aluminum housing with a rugged polycarbonate bubble.
   5. The camera dome shall have variable pan and tilt speeds, and autopivot capability for optimal camera control and viewing at all zoom levels.
   6. The camera shall support 99 user-defined presets.
   7. The camera shall offer an outdoor model and be rated to IP65 environmental standards.

1.5 SUBMITTALS

A. Submit under provisions of Section [01 33 00.]

B. Product Data:
   1. Manufacturer's data, user and installation manuals for all equipment and software programs including computer equipment and other equipment required for complete video management system.

C. Shop Drawings; include
   1. System device locations on architectural floor plans.
   2. Full Schematic of system, including wiring information for all devices.

D. Closeout Submittals
   1. User manual.
   2. Parts list.
   3. System device locations on architectural floor plans.
   4. Wiring and connection diagram.
   5. Maintenance requirements.

1.6 QUALITY ASSURANCE

A. Manufacturer:
   1. Minimum of [10] years experience in manufacture and design Video Surveillance Devices.

B. Video Surveillance System:
   1. Listed by CSA.
   2. Certified compliant to FCC and CE for the required loads. Test methods are in accordance with Industry Canada and the IEC. Provide evidence of compliance upon request.

C. Installer:
   1. Minimum of [5] years experience installing Video Surveillance System.

1.7 DELIVERY, STORAGE AND HANDLING

A. Comply with requirements of Section 01 60 00.

B. Deliver materials in manufacture's original, unopened, undamaged containers; and unharmed original identification labels.

C. Protect store materials from environmental and temperature conditions following manufacturer's instructions.

D. Handle and operate products and systems according to manufacturer's instructions.

E. Bosch provides off-the-shelf availability for our top selling products and same-day or 24-hour shipping.

1.8 WARRANTY

A. Provide manufacturer's warranty covering 3 years for replacement and repair of defective equipment.

1.9 MAINTENANCE

A. Make ordering of new equipment for expansions, replacements, and spare parts available to dealers and end users.

B. Provide factory direct technical support from 8:00 a.m. to 8:00 p.m. via phone and e-mail.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer:
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B. Substitutions: [Not permitted.] [Under provisions of Division 1.]
1. [All proposed substitutions must be approved by the Architect or Engineer professional.]
2. [Proposed substitutions must provide a line-by-line compliance documentation.]

2.2 BOSCH AUTODOME EASY II COMPACT PTZ MINI DOME [VEZ-221-ICTS] [VEZ-211-ICTS] [VEZ-211-IWTS] [VEZ-221-IWTS]

A. General Characteristics:
   1. The compact PTZ camera shall provide a ¼-inch color CCD camera with the following:
      a. 530 TVL (NTSC/PAL) resolution.
      b. Sensitivity to below 1.0 lux.
   2. The compact PTZ camera shall support the following tour modes:
      a. 99 user-defined pre-positions.
      b. 1 preset tour capable of 99 pre-positions and a configurable dwell time between positions.
      c. 2 recorded tours with a total duration of 15 minutes.
      d. 2 Autopan modes.
   3. The pan and tilt preset repeatability shall be accurate to within ±0.1 degrees.
   4. The compact PTZ camera shall provide the following variable pan/tilt speeds
      a. A range of 0.1 degrees per second to 120 degrees per second.
      b. A pan speed of 360 degrees per second and a tilt speed of 100 degrees per second between prepositions.
   5. The compact PTZ camera shall provide a tilt range of 0 to 94 degrees and a pan range of up to 360 degrees of continuous rotation.
   6. The compact PTZ camera shall provide the patented Bosch AutoScaling (proportional zoom) and AutoPivot features.
   7. The compact PTZ camera shall provide 8 independent sectors and allow 16-character titles for each sector.
   8. The compact PTZ camera shall provide 12 individual privacy masks with the following features:
      a. Shapes shall be defined with three, four or five corners.
      b. The mask shall be white, black or blurred.
   9. The compact PTZ camera shall be fully assembled and ready for surface mount applications.
   10. The compact PTZ camera shall be able to be mounted to a wall, recessed into a ceiling, mounted to a surface or mounted to a pipe.
   11. The compact PTZ camera shall support the following languages:
      a. Dutch
      b. English
      c. French
      d. German
      e. Italian
      f. Polish
      g. Portuguese
      h. Spanish
      i. Czech and Russian available for download

B. Camera:
   1. Imager: ¼-inch Exview HAD CCD
   2. Effective Pixels (H x V):
      a. [PAL: 752 x 582]
      b. [NTSC: 768 x 494]
   3. Lens:
      a. 10x Zoom
      b. 4.2 to 42.0 mm
      c. f/1.8
   4. Iris: Automatic with manual override
   5. Field of View:
      a. TELE end: Approximately 4.6°
      b. WIDE end: 46°
   6. Video Output: 1.0 Vp-p, 75 Ohm
   7. Gain Control: AGC on/off, 28db max
   8. Synchronization: Internal/external
   9. Aperture correction: user adjustable
   10. Horizontal Resolution: 530 TVL, typical
   11. Zoom Capabilities:
      a. Digital: 12x
      b. Optical: 10x
      c. Optical FOV: 4.6° to 46°
   12. Sensitivity (typical with tinted bubble)[1]:
      a. [30 IRE:
         1) SensUP Off: 0.83 lx
         2) SensUP On (1/4): 0.043 lx]
      b. [50 IRE:
         1) SensUP Off: 1.67 lx
         2) SensUP On (1/4): 0.110 lx]
   13. Signal-to-Noise Ratio: 50 db
   14. White Balance:
      a. Auto
      b. Indoor
      c. Outdoor
      d. 1 push

C. Mechanical
   1. Size (Diameter x Height): 153.0 x 133.0 mm (6.02 x 4.61 in.)
   2. Construction:
      a. Housing: Cast aluminum
      b. Bubble: Polycarbonate
   3. Weight: 1.3 kg (2.86 lb)
   4. Pan Range: 0 to 360° continuous
   5. Tilt Angle: 0 to 94°
   6. Variable Speed: 0.1°/s to 120°/s
   7. Pre-position Speed:
      a. Pan: 360°/s
      b. Tilt: 100°/s
   8. Preset Accuracy: ± 0.1° typical

D. Electrical
   1. Camera, Indoor Rated Voltage
      a. [12 VDC ± 10%, 50/60 Hz]
      b. [24 VAC ± 10%, 50/60 Hz]
   2. Camera, Outdoor Rated Voltage: 24 VAC ± 10%, 50/60 Hz
   3. Heater, Outdoor Rated Voltage: 24 VAC ± 10%, 50/60 Hz
   4. Power Draw (typical):
      a. Indoor models: 10 W
      b. Outdoor models: 35 W

E. Environmental:
   1. Operating Temperature:
      a. Indoor models: –10°C to 50°C (14°F to 122°F)
      b. Outdoor models: –30°C to 50°C (–22°F to 122°F)
   2. Storage Temperature: –40°C to 60°C (–40°F to 140°F)
   3. Operating Humidity: 0% to 90% relative, non-condensing

F. User Connections:
   1. Power (camera):
      a. Indoor models: 24 VAC or 12 VDC, 50/60 Hz
      b. Outdoor models: 24 VAC, 50/60 Hz
      c. Heater: 24 VAC, 50/60 Hz
   2. Control:
      a. Biphase +/-
      b. RS-485
      c. Bilinx
   3. Video: BNC
   4. Alarm Input (2): NC/NO
   5. Alarm Output: Open collector NPN, 32 VDC @ 150 mA, maximum

G. Miscellaneous
   1. Sectors/Titling: 8 independent sectors with 16-character titles/sector
   2. Protocol Support:
      a. Bosch OSRD
      b. Bosch Bilinx
      c. Pelco P
      d. Pelco D

PART 3 – EXECUTION

3.1 EXAMINATION

A. Examine areas to receive devices and notify adverse conditions affecting installation or subsequent operation.

B. Do not begin installation until unacceptable conditions are corrected.

3.2 PREPARATION

A. Protect devices from damage during construction.

3.3 INSTALLATION

A. Install devices in accordance with manufacturer's instruction at locations indicated on the floor drawings plans.

B. Perform installation with qualified service personnel.

C. Install devices in accordance with the National Electrical Code or applicable local codes.

D. Ensure selected location is secure and offers protection from accidental damage.

E. Location must provide reasonable temperature and humidity conditions, free from sources of electrical and electromagnetic interference.

3.4 FIELD QUALITY CONTROL

A. Test snugness of mounting screws of all installed equipment.

B. Test proper operation of all video system devices.

C. Determine and report all problems to the manufacturer's customer service department.

3.5 ADJUSTING

A. Make proper adjustment to video system devices for correct operation in accordance with manufacturer's instructions.

B. Make any adjustment of camera settings to comply with specific customer's need.

3.6 DEMOSTRATION

A. Demonstrate at final inspection that video management system and devices functions properly.

END OF SECTION